

IN THE CLAIMS

1. (Currently Amended) A medical system, comprising:

a first lead including a first electrode, a second electrode, a first insulated conductor, a second insulated conductor, a connector terminal, and an auxiliary connector port; the auxiliary connector port including a connector contact; and the lead connector terminal including a first connector element electrically coupled to the first electrode via the first conductor, a second connector element electrically coupled to the connector contact of the auxiliary port via the second conductor, and a third connector element;

a second lead including an electrode adapted for high-voltage therapy, an insulated conductor, and a connector terminal; the connector terminal of the second lead including a connector element electrically coupled to the electrode via the conductor; and

an IMD including a connector port including a first connector and a second connector;

wherein, the first, second and third connector elements of the first lead are adapted to make an electrical connection within the connector port of the IMD;

the auxiliary port of the first lead is adapted to engage the connector terminal of the second lead thereby electrically coupling the connector element of the second lead to the second connector element of the connector terminal of the first lead via the connector contact; and

the connector port of the IMD is adapted to engage the connector terminal of the first lead thereby electrically coupling the first connector element of the first lead, via the first connector, and the second connector element of the first lead, via the second connector, to the IMD.

2. (Original) The medical system of claim 1, wherein the first electrode is adapted for high-voltage therapy.

3. (Currently Amended) The medical system of claim 2, wherein:

the first lead further includes a third insulated conductor electrically coupling the third connector element of the connector terminal of the first lead to the second electrode of the first lead; [[and]]

the second electrode of the first lead is adapted for low-voltage therapy;
and

the connector port of the IMD further includes a third connector electrically coupling the third connector element of the connector terminal of the first lead to the IMD when the connector port of the IMD engages the connector terminal of the first lead.

4. (Currently Amended) The medical system of claim 2 wherein the second electrode of the first lead is adapted for high-voltage therapy and the second conductor of the first lead further electrically couples the second electrode to the second connector element of the connector terminal of the first lead.

5. (Original) The medical system of claim 4, wherein the first lead further includes a switch adapted to reversibly disconnect the coupling of the second conductor to the second electrode of the first lead.

6. (Currently Amended) The medical system of claim 4, wherein

the first lead further includes a third electrode adapted for low-voltage therapy and a third insulated conductor;

the connector terminal of the first lead further includes a fourth connector element electrically coupled to the third electrode via the third insulated conductor; and

the connector port of the IMD further includes a third connector coupling the fourth connector element of the connector terminal of the first lead to the IMD when the connector port of the IMD engages the connector terminal of the first lead.

7. (Currently Amended) A medical electrical lead, comprising:
- a first electrode;
 - a second electrode;
 - a first insulated conductor;
 - a second insulated conductor;
 - an auxiliary connector port including a connector contact adapted to electrically couple an electrode of a second lead; and
 - a connector terminal including a first connector element electrically coupled to the first electrode via the first conductor, a second connector element electrically coupled to the connector contact of the auxiliary port via the second conductor, and a third connector element;
- wherein the first, second and third connector elements are adapted to make an electrical connection.
8. (Original) The medical electrical lead of claim 7, wherein the first electrode is adapted for high-voltage therapy.
9. (Currently Amended) The medical electrical lead of claim 8, further comprising a third insulated conductor electrically coupling the third connector element of the connector terminal to the second electrode; and wherein the second electrode is adapted for low-voltage therapy.
10. (Currently Amended) The medical electrical lead of claim 8, wherein the second electrode is adapted for high-voltage therapy and the second conductor further electrically couples the second electrode to the second connector element of the connector terminal.
11. (Original) The medical electrical lead of claim 10, further comprising a switch adapted to reversibly disconnect the coupling of the second conductor to the second electrode.

12. (Currently Amended) The medical electrical lead of claim 10, further comprising:

a third electrode adapted for low-voltage therapy; and

a third insulated conductor; wherein

the connector terminal further includes a fourth connector element electrically coupled to the third electrode via the third insulated conductor.

13. (Original) A medical system, comprising:

a first lead including an electrode adapted for high-voltage therapy, a first insulated conductor, a second insulated conductor, a third insulated conductor, a connector terminal, and an auxiliary connector port; the auxiliary connector port including a first connector contact and a second connector contact and the lead connector terminal including a first connector element coupled to the first electrode via the first conductor, a second connector element coupled to the first connector contact of the auxiliary port via the second conductor and a third connector element coupled to the second connector contact via the third conductor;

a second lead including a first electrode adapted for high-voltage therapy, a second electrode adapted for low-voltage therapy, a first insulated conductor, a second insulated conductor and a connector terminal; the connector terminal of the second lead including a first connector element coupled to the first electrode of the second lead via the first conductor of the second lead and a second connector element coupled to the second electrode of the second lead via the second conductor of the second lead; and

an IMD including a connector port including a first connector, a second connector and a third connector;

wherein, the auxiliary port of the first lead is adapted to engage the connector terminal of the second lead thereby coupling the first connector element of the second lead to the second connector element of the connector terminal of the first lead via the first connector contact and coupling the second connector element of the second lead to the third connector element of the first lead via the second connector contact; and

the connector port of the IMD is adapted to engage the connector terminal of the first lead thereby coupling the first connector element of the first lead, via the first connector, the second connector element of the first lead, via the second connector, and the third connector element of the first lead, via the third connector, to the IMD.

14. (Original) The medical system of claim 13, wherein:

the auxiliary port of the first lead further includes a third connector contact and the first connector element of the first lead is further coupled to the third connector contact via the first conductor of the first lead;

the second lead further includes a third electrode adapted for high voltage therapy and a third insulated conductor;

the connector terminal of the second lead further includes a third connector element coupled to the third electrode of the second lead via the third insulated conductor of the second lead; and

the auxiliary port is further adapted to couple the third connector element of the second lead to the first connector element of the first lead via the third connector contact.

15. (Original) The medical system of claim 14, wherein

the first lead further includes a fourth insulated conductor;

the auxiliary port of the first lead further includes a fourth connector contact;

the connector terminal of the first lead further includes a fourth connector element coupled to the fourth connector contact via the fourth conductor of the first lead;

the second lead further includes a fourth electrode adapted for low-voltage therapy and a fourth insulated conductor;

the connector terminal of the second lead further includes a fourth connector element coupled to the fourth electrode via the fourth conductor;

the auxiliary port of the first lead is further adapted to couple the fourth connector element of the second lead to the fourth connector element of the first lead via the fourth connector contact; and

the connector port of the IMD further includes a fourth connector coupling the fourth connector element of the connector terminal of the first lead to the IMD when the connector port of the IMD engages the connector terminal of the first lead.

16. (Currently Amended) A supplemental defibrillation lead, comprising:

- a high-voltage electrode;
- a first insulated conductor;
- a second insulated conductor;
- a third insulated conductor;

an auxiliary connector port including a first connector contact adapted to electrically couple a high-voltage electrode of a second lead and a second connector contact adapted to electrically couple a low-voltage electrode of [[a]] the second lead; and

a connector terminal including a first connector element electrically coupled to the high-voltage electrode of the defibrillation lead via the first conductor, a second connector element electrically coupled to the first connector contact of the auxiliary port via the second conductor and a third connector element electrically coupled to the second connector contact of the auxiliary port via the third conductor.

17. (Currently Amended) The defibrillation lead of claim 16, wherein:

the auxiliary connector port further includes a third connector contact adapted to electrically engage a second high-voltage electrode of the second lead; and

the first conductor further electrically couples the first connector element to the third connector contact.

18. (Currently Amended) The defibrillation lead of claim 17 further comprising a fourth insulated conductor and wherein:

the auxiliary port further includes a fourth connector contact adapted to electrically couple a second low-voltage electrode of the second lead; and

the connector terminal further includes a fourth connector element electrically coupled to the fourth connector contact via the fourth conductor.

Applicants: Andrew J. Ries et al.
Serial No.: 10/620,710
Page 10

19. - 29. Canceled